

Math 112
ReQuiz 05B06B

2022-02-13 (N)

Your name: _____

Exercise

(4 pt) Consider the function

$$f : \mathbf{R} \rightarrow \mathbf{R} \quad \text{given by} \quad f(x) = e^{-2x} + x^3 + 4x + 3$$

(a) (3 pt) Compute the linearization of (aka linear approximation to) f at $x = 0$.

(b) (1 pt) Use your linearization from part (a) to approximate the value $f(1)$. Find the error in this approximation. (Where relevant, you may leave computations in terms of e .)